

# PATENT ABSTRACTS OF JAPAN

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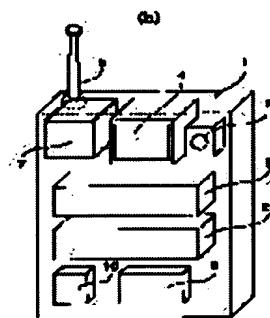
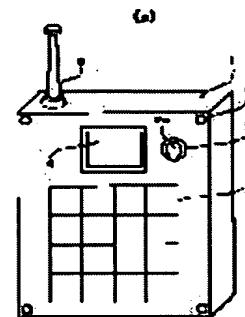
(72)Inventor : ARIMURA KUNITAKA

## (54) MONITOR CAMERA TRANSMITTER

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a monitor camera transmitter for transmitting a video captured by a camera by radio by using a power source having a solar cell and a secondary cell in combination.

**SOLUTION:** Any or both of the solar cell, the secondary cell, the camera, a radio equipment and a calling button or a sensitive sensor are integrally constituted in a planar state so as to have a structure to be simply mounted in an outdoor exit/entrance. Thus, the video captured by the camera is automatically transmitted by radio by pressing the button by a visitor or by operating the sensor.



## LEGAL STATUS

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CLAIMS DETAILED DESCRIPTION TECHNICAL FIELD PRIOR ART EFFECT OF THE INVENTION TECHNICAL PROBLEM MEANS DESCRIPTION OF DRAWINGS DRAWINGS

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CLAIMS

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[Claim(s)]

[Claim 1] Surveillance camera transmission equipment characterized by transmitting automatically on radio the image caught with the aforementioned camera when a solar battery, a rechargeable battery, a camera, a walkie-talkie, and either a call button or a sensing sensor and both were superficially constituted from one, and a visitor person pushed the aforementioned call button or the aforementioned sensing sensor operated so that it may have the structure simply attached in an outdoor entrance.

[Claim 2] Surveillance camera transmission equipment characterized by transmitting the image of the aforementioned camera, and the voice of the aforementioned microphone on radio automatically when a solar battery, a rechargeable battery, a camera, a walkie-talkie, a microphone, and either a call button or a sensing sensor and both are superficially constituted from one, and a visitor person pushes the aforementioned call button or the aforementioned sensing sensor operates so that it may have the structure simply attached in an outdoor entrance.

[Claim 3] Surveillance camera transmission equipment according to claim 1 or 2 characterized by what a chime is sounded and is told when put the image of the aforementioned camera on the RF subcarrier, transmitted on radio, and the indoor receiver received, the aforementioned sensing sensor operates, or a power supply is turned on with a call button and an input signal is detected with the aforementioned receiver.

[Claim 4] Surveillance camera transmission equipment according to claim 1 to 3 characterized by the ability to receive a picture with common home TV receiver by putting the image of the aforementioned camera on a RF subcarrier, transmitting on radio, doubling the electric wave which received with the indoor receiver and was received with this receiver, and other electric waves sent from an antenna terminal, and transmitting to TV receiver.

[Claim 5] Surveillance camera transmission equipment according to claim 1 to 4 characterized by taking out a video-signal signal from the signal which put the image of the aforementioned camera on the RF subcarrier, transmitted on radio, received with the indoor receiver, and was received with this receiver, taking in an image and being able to receive a picture from the video signal terminal of TV receiver.

[Claim 6] Surveillance camera transmission equipment according to claim 1 to 5 characterized by turning on TV receiver automatically and enabling it to project an image when put the image of the aforementioned camera on a RF subcarrier, it transmits on radio, an indoor receiver receives and an input signal is detected with this receiver.

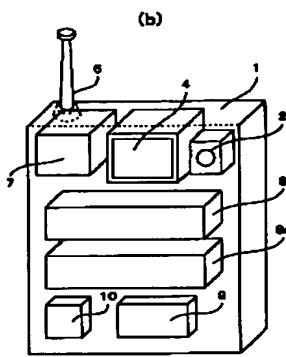
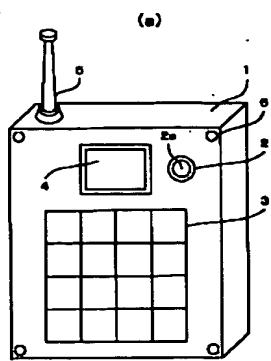
[Claim 7] Surveillance camera transmission equipment according to claim 1 to 6 characterized by recording on videotape the receiving image which put the image of the aforementioned camera on the RF subcarrier, transmitted on radio, received with the indoor receiver, and received with this receiver, and enabling it to project a videotape-recording image behind.

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[Translation done.]

Drawing selection [Representative drawing]

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## DETAILED DESCRIPTION

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### [Detailed Description of the Invention]

#### [0001]

[The technical field to which invention belongs] this invention makes it possible no to wire by the solar battery and the rechargeable battery power supply, and relates to the surveillance camera transmission equipment which transmits the caught image with CCD or a CMOS small camera on radio.

#### [0002]

[Description of the Prior Art] Although there is technology of a door camera, an interphone, etc. conventionally, since the cable is made into the subject, wiring is troublesome, and post-installation is difficult. Supply of power will become difficult if it carries out no wiring. Therefore, since it will not become if a cell is not changed frequently and kicked, although there is also a method using a cell, a maintenance does not bear use troublesomely.

#### [0003]

[Problem(s) to be Solved by the Invention] In order to also attach an amateur simply in this invention in order to solve the above problems, and to make a hole in a house, to make it crawl on a line or not to stop by the staple etc., it aims at offering the surveillance camera transmission equipment which transmits on radio the image caught with the camera using the power supply which combined the solar battery and the rechargeable battery.

#### [0004]

[Means for Solving the Problem] In order to attain the above-mentioned purpose, invention according to claim 1 So that it may have the structure simply attached in an outdoor entrance A solar battery, When a rechargeable battery, a camera, a walkie-talkie, and either a call button or a sensing sensor and both are superficially constituted from one, and a visitor person pushes the aforementioned call button or the aforementioned sensing sensor operates It is characterized by transmitting automatically the image caught with the aforementioned camera on radio.

[0005] In invention according to claim 2, when it has a microphone in addition to a claim 1, and a visitor person pushes the aforementioned call button or the aforementioned sensing sensor operates, it is characterized by transmitting the image of the aforementioned camera, and the voice of the aforementioned microphone on radio automatically.

[0006] Invention according to claim 3 is characterized by what a chime is sounded and is told, when put the image of the aforementioned camera on the RF subcarrier, transmitted on radio, and the indoor receiver received, the aforementioned sensing sensor operates, or a power supply is turned on with a call button and an input signal is detected with the aforementioned receiver.

[0007] Invention according to claim 4 is characterized by the ability to receive a picture with common home TV receiver by doubling the electric wave which received the image of the aforementioned camera with the indoor receiver, and was received with this receiver, and other electric waves sent from an antenna terminal, and transmitting to TV receiver.

[0008] Invention according to claim 5 takes out a video-signal signal from the signal which received the image of the aforementioned camera with the indoor receiver, and was received with this receiver, and is characterized by taking in an image and being able to receive a picture from the video signal terminal of TV receiver.

[0009] When an indoor receiver receives the image of the aforementioned camera and an input signal is detected with this receiver, invention according to claim 6 turns on TV receiver automatically, and is characterized by enabling it to project an image.

[0010] Invention according to claim 7 records on videotape the receiving image which received the image of the aforementioned camera with the indoor receiver, and received with this receiver, and is characterized by enabling it to project a videotape-recording image behind.

#### [0011]

[Embodiments of the Invention] Next, the example of the gestalt of operation of the surveillance camera transmission equipment concerning this invention is explained, referring to a drawing.

[0012] Drawing 1 is the schematic diagram showing the transmitter of the surveillance camera transmission

equipment in the gestalt of this operation, drawing 1 (a) shows the appearance of a transmitter and drawing 1 (b) shows the interior of a transmitter.

[0013] Inspection hole 2a which the lens of a camera 2 peeps into to the transmitter 1 of drawing 1 is prepared. A solar battery 3 is arranged at the superficies of a transmitter 1, power generation by sunlight is performed by this solar battery 3, and this current charges at the rechargeable batteries 8 and 8a by the lithium ion battery, the proton polymer battery, etc. through the electric double layer capacitor 9 and the power control circuit 10 which are shown in drawing 1 (b). Therefore, most main parts are occupied by the power unit. Although it is not necessary to use two pieces as shown in drawing when one is enough as the voltage of rechargeable batteries 8 and 8a, current, and power capacity, when insufficient now, you have to increase further.

[0014] Generally, since voltage required for a CCD camera is 100mA – about 150mA, 6V–12V, and current can fully perform power generation and charge by sunlight. The CMOS camera is better, if a CMOS camera serves as a low price and high performance, since it can operate by low current value more when using a CMOS camera instead of a CCD camera.

[0015] The image which received a picture with the CCD camera or the CMOS camera is sent by NTSC or the PAL system from the transmitting section 7 (frequency of 13ch – 27ch, 1.2–1.3GHz of broadcasting satellite tuners etc., etc.) of UHF, and it transmits through an antenna 5. Since it is easily receivable with it being the frequency band which is the receiving range of the conventional TV receiver (TV is called henceforth), it is desirable to make it operate with the minute power acting as [especially others] an obstacle using the frequency used as disturbance of this range.

[0016] In addition, you may use frequency of BlueTooth known as radio specification of power saving, and wireless LAN, such as 2.4 etc.GHz. When using for business use, the frequency of exclusive use can also be used, and you may transmit an image digital signal.

[0017] The electric power supply to the radio machine for being installed in the bright place where the day of a space outside the front door or the outdoors hits in many cases, supplying electric power in the power supply to a camera or a microphone without constituting an efficient power supply and wiring the power line by using a solar battery 3, a rechargeable battery 8, the electric–double–layer–capacitor capacitor 9, or a proton polymer battery, and transmitting an image and voice on radio, and the electric power supply to a human body sensing sensor etc. can also perform a transmitter 1.

[0018] In addition, the monitor section 4 is formed in a transmitter 1 if needed, the image copied with the camera 2 may be displayed, and a receiving set is formed, and you may make it project an indoor image. 6 expresses the stop screw.

[0019] Drawing 2 is called to a transmitter 1, forms a button 20, and a switch is turned on and it enables it to transmit an image by pushing this button 20. Moreover, you may enable it to sound a chime simultaneously at this time.

[0020] When giving the function of an interphone, sound is transmitted through a slit 22 and voice is received by the microphone. In telling the voice from indoor, a receiving set and a loudspeaker are needed also for a transmitter 1 side.

[0021] In addition, it is also possible to install in the sense from which the panel (cell) portion of the solar battery 3 with which the transmitter 1 shown in drawing 1 and drawing 2 is equipped is suitably separated from a part for an one transmitter soma, without constituting in one, and the solar quantity of light is obtained more depending on the case.

[0022] In order that drawing 3 may receive the video signal emitted from the antenna 5 of the transmitter 1 attached in the outdoors shown in drawing 1 or drawing 2, it shows the receiver 11 set by TV top or its side, and is received by the antenna 15. The received video signal remains as it is, or is amplified through the high-frequency amplifier (amplifier), and is sent and televised by the usual TV.

[0023] When a signal goes into the indoor receiver 11, the chime 18 attached in the receiver 11 may be sounded, and the chime attached in the outdoors may be sounded. An outdoor image is receivable with the usual TV by choosing the channel which switched on TV and was beforehand decided by remote control in the place where the chime was able to be heard.

[0024] When projecting an image automatically, TV is set to the channel set beforehand, and if the switch in a receiver 11 is moved and the power supply of TV is turned ON, when a signal is inputted into a receiver 11, even if it will not operate the power supply of TV by remote control, a switch is switched on automatically. If TV is switched to the image side even if it uses the video signal after detection, an image can be seen on the same conditions.

[0025] If the receiver 11 of drawing 3 is explained further, a receiver power supply will be turned on and off by the electric power switch 14. When the receiver 11 is operating, red Light Emitting Diode16 lights. When a video signal is received, green Light Emitting Diode17 can light and a chime 18 can be sounded. When a chime 18 rings, you may make it switch with a button formula switch (not shown), when switching manually.

[0026] drawing 4 shows the main composition inside a receiver 11, and the RF signal received with the antenna

15 is received by the receive section 12 — having — after amplification — or it is detected as it is When transmitting a RF signal as it is, a signal goes into the portion of the coupler 13 which consisted of a coupler, a mixer, or the switch section, and it is outputted to TV through this coupler 13.

[0027] Since it must switch with the signal which enters from an antenna 15 or must mix when sending a RF signal to TV, suitable processing is received by the coupler 13. When operating this receiver 11, as ON of the power supply corresponding to remote control of TV, an OFF signal, etc. can be received in the state where TV is not turned off, there is the need of switching by the switcher (not shown). In addition, in order to operate a receiver 11, conversion and DC current of voltage are acquired by the power supply section 19.

[0028] Drawing 5 is what showed the example of circuitry of the transmitter 1 installed in the outdoors, and the sunlight received by the solar battery 3 is changed as voltage current, and is charged by an electric double layer capacitor 9 and the rechargeable battery 8 through the antisuckback diode 23 and the power control circuit 10.

[0029] When a human body approaches, a switch SW1 is operated with a heat ray or the infrared sensor (sensor) 24, DC power supply are supplied to CCD camera (CMOS camera) (C) 2 and the transmitting section 7 (T), and a video signal Sg is transmitted through the transmitting section 7 (T) and an antenna 5. A switch SW1 can be turned on manually and a chime 28 can also be sounded.

[0030] Drawing 6 shows the example of circuitry of a receiver 11, selection reception is carried out by 12a, and the signal received by the receiving antenna 15 is amplified through high-frequency-amplifier (RF Amp) 12b. The chime 18 which showed that the signal was received to drawing 3 and drawing 4 by detecting can be set to ON, and can be sounded, and a visitor is told. Received RF signal is compounded through TV signal and coupler 13a which enter from TV antenna, and is connected to the antenna terminal of TV.

[0031] Only when the line by which it came from the antenna 15 side by the strength of the image by the signal intensity and the CCD camera which come from an antenna 15 is made direct connection or (b) or a vid o signal enters, the method of combination by coupler 13a takes the (c) method switched to the line by which a video signal is transmitted, or can build either.

[0032] In the case of the cable treating a RF, since the female mold plug is common in TV, the terminal of a female mold is used. Moreover, it cuts by the capacitor, and a RF can be passed and a direct current can be made to omit to omit a direct current. AC power supply can be separated by the transformer and can also be cut by the capacitor using the difference in frequency.

[0033] In addition, although not illustrated, in a power supply section, DC power supply are obtained from an alternating current, and a receiver 11 is supplied. The amount of this power supply section may use an AC adapter.

[0034] The case where a video signal is changed and transmitted to a video signal is shown in drawing 7. Although high-frequency-amplifier 12b is the same, it can switch with the line by which this RF is detected with a wave detector 25, baseband is made into a video signal, and it comes from VTR by change machine or switch 13c, and an image can be transmitted to the video terminal of TV.

[0035] 25a is the transmission line of a video signal, and 25b is a signal line for detecting the output from amplifier and operating a switch 13.

[0036] Since drawing 8 has some which show the case where voice is transmitted like an interphone and can transmit voice simultaneously by the NTSC color TV system depending on CCD camera equipment, in that case, voice can also be carried and transmitted to an NTSC signal as it is.

[0037] Although the power supply section is almost the same as drawing 5, it turns on a switch SW1 by the human body sensing sensor 24, sounds a chime 28, turns ON a power supply, it receives voice with a microphone (A) 26, projects an image with a camera (C) 2, and transmits these signals indoors with a transmitter (T) 7.

[0038] Drawing 8 (b) shows the case where a video signal and a sound signal are transmitted separately.

[0039] Drawing 9 has the function which records the received video signal on memory 27, and enables it to reproduce it behind. By DSP (digital signal processor) built in a CCD camera without performing such record by the receiving side, a digital signal can be recorded, and it can save as a still picture, and can also transmit behind.

[0040] It can check, after what visitor's was between absences going home by this. If a picture is sent to VTR other than TV, it is also recordable on VTR.

[0041] In addition, when input signal weak a signal and sufficient as a transceiver antenna is not obtained, you may use the method of turning directivity in the direction of both transmitter-receiver using about 2-3 Yagi Antenna.

[0042]

[Effect of the Invention] So that it may have the structure simply attached in an outdoor entrance according to invention given in claims 1 and 2, as explained above A solar battery, a rechargeable battery, a camera, a microphone, a walkie-talkie, or a call button or a sensing sensor Or when both are superficially constituted from one, and a visitor person pushes the aforementioned call button or a sensing sensor operates The image caught with the camera and the voice of a microphone are transmitted on radio automatically, and electric supply of the

power supply to a camera or a microphone, the electric power supply to the radio machine for transmitting an image and voice on radio, and the electric power supply to a human body sensing sensor etc. can be performed without wiring the power line. Moreover, since the cable which transmits a video signal also becomes unnecessary in building in a walkie-talkie as one, a main part can attach independently, the time and effort of wiring can also be saved, and an amateur also has the effect attached simply.

[0043] When according to invention according to claim 3 put the image of the aforementioned camera on the RF subcarrier, transmitted on radio, and the indoor receiver received, the aforementioned sensing sensor operates, or a power supply is turned on with a call button and an input signal is detected with the aforementioned receiver, it can know that it was indoors and there was a caller by sounding a chime and telling about.

[0044] According to invention according to claim 4, by doubling the electric wave which received the image of the aforementioned camera with the indoor receiver, and was received with this receiver, and other electric waves sent from an antenna terminal, and transmitting to TV receiver, a picture can be received with common home TV receiver, and the receiving set of exclusive use is not needed.

[0045] According to invention according to claim 5, a video-signal signal can be taken out from the signal which received the image of the aforementioned camera with the indoor receiver, and was received with this receiver, and from the video signal terminal of TV receiver, an image is taken in, a picture can be received, and an outdoor situation can be recorded using a videocassette recorder etc. if needed.

[0046] When according to invention according to claim 6 an indoor receiver receives the image of the aforementioned camera and an input signal is detected with this receiver, TV receiver is turned on automatically and it becomes possible by enabling it to project an image to get to know that there was a caller with an image.

[0047] According to invention according to claim 7, it becomes possible to record on videotape the receiving image which received the image of the aforementioned camera with the indoor receiver, and received with this receiver, to have gone back in the past by enabling it to project a videotape-recording image behind, and to get to know a caller.

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**TECHNICAL FIELD**

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[The technical field to which invention belongs] this invention makes it possible no to wire by the solar battery and the rechargeable battery power supply, and relates to the surveillance camera transmission equipment which transmits the caught image with CCD or a CMOS small camera on radio.

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## EFFECT OF THE INVENTION

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[Effect of the Invention] It is a solar battery so that it may have the structure simply attached in an outdoor entrance according to invention given in claims 1 and 2, as explained above. When a rechargeable battery, a camera, a microphone, a walkie-talkie, and either a call button or a sensing sensor and both are superficially constituted from one, and a visitor person pushes the aforementioned call button or a sensing sensor operates. The image caught with the camera and the voice of a microphone are transmitted on radio automatically, and electric supply of the power supply to a camera or a microphone, the electric power supply to the radio machine for transmitting an image and voice on radio, and the electric power supply to a human body sensing sensor etc. can be performed without wiring the power line. Moreover, since the cable which transmits a video signal also becomes unnecessary in building in a walkie-talkie as one, a main part can attach independently, the time and effort of wiring can also be saved, and an amateur also has the effect attached simply.

[0043] When according to invention according to claim 3 put the image of the aforementioned camera on the RF subcarrier, transmitted on radio, and the indoor receiver received, the aforementioned sensing sensor operates, or a power supply is turned on with a call button and an input signal is detected with the aforementioned receiver, it can know that it was indoors and there was a caller by sounding a chime and telling about.

[0044] According to invention according to claim 4, by doubling the electric wave which received the image of the aforementioned camera with the indoor receiver, and was received with this receiver, and other electric waves sent from an antenna terminal, and transmitting to TV receiver, a picture can be received with common home TV receiver, and the receiving set of exclusive use is not needed.

[0045] According to invention according to claim 5, a video-signal signal can be taken out from the signal which received the image of the aforementioned camera with the indoor receiver, and was received with this receiver, and from the video signal terminal of TV receiver, an image is taken in, a picture can be received, and an outdoor situation can be recorded using a videocassette recorder etc. if needed.

[0046] When according to invention according to claim 6 an indoor receiver receives the image of the aforementioned camera and an input signal is detected with this receiver, TV receiver is turned on automatically and it becomes possible by enabling it to project an image to get to know that there was a caller with an image.

[0047] According to invention according to claim 7, it becomes possible to record on videotape the receiving image which received the image of the aforementioned camera with the indoor receiver, and received with this receiver, to have gone back in the past by enabling it to project a videotape-recording image behind, and to get to know a caller.

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**TECHNICAL PROBLEM**

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**[Problem(s) to be Solved by the Invention]** In order to also attach an amateur simply in this invention in order to solve the above problems, and to make a hole in a house, to make it crawl on a line or not to stop by the staple etc., it aims at offering the surveillance camera transmission equipment which transmits on radio the image caught with the camera using the power supply which combined the solar battery and the rechargeable battery.

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## MEANS

[Means for Solving the Problem] In order to attain the above-mentioned purpose, invention according to claim 1 So that it may have the structure simply attached in an outdoor entrance A solar battery, When a rechargeable battery, a camera, a walkie-talkie, and either a call button or a sensing sensor and both are superficially constituted from one, and a visitor person pushes the aforementioned call button or the aforementioned sensing sensor operates It is characterized by transmitting automatically the image caught with the aforementioned camera on radio.

[0005] In invention according to claim 2, when it has a microphone in addition to a claim 1, and a visitor person pushes the aforementioned call button or the aforementioned sensing sensor operates, it is characterized by transmitting the image of the aforementioned camera, and the voice of the aforementioned microphone on radio automatically.

[0006] Invention according to claim 3 is characterized by what a chime is sounded and is told, when put the image of the aforementioned camera on the RF subcarrier, transmitted on radio, and the indoor receiver received, the aforementioned sensing sensor operates, or a power supply is turned on with a call button and an input signal is detected with the aforementioned receiver.

[0007] Invention according to claim 4 is characterized by the ability to receive a picture with common home TV receiver by doubling the electric wave which received the image of the aforementioned camera with the indoor receiver, and was received with this receiver, and other electric waves sent from an antenna terminal, and transmitting to TV receiver.

[0008] Invention according to claim 5 takes out a video-signal signal from the signal which received the image of the aforementioned camera with the indoor receiver, and was received with this receiver, and is characterized by taking in an image and being able to receive a picture from the video signal terminal of TV receiver.

[0009] When an indoor receiver receives the image of the aforementioned camera and an input signal is detected with this receiver, invention according to claim 6 turns on TV receiver automatically, and is characterized by enabling it to project an image.

[0010] Invention according to claim 7 records on videotape the receiving image which received the image of the aforementioned camera with the indoor receiver, and received with this receiver, and is characterized by enabling it to project a videotape-recording image behind.

[0011]

[Embodiments of the Invention] Next, the example of the gestalt of operation of the surveillance camera transmission equipment concerning this invention is explained, referring to a drawing.

[0012] Drawing 1 is the schematic diagram showing the transmitter of the surveillance camera transmission equipment in the gestalt of this operation, drawing 1 (a) shows the appearance of a transmitter and drawing 1 (b) shows the interior of a transmitter.

[0013] Inspection hole 2a which the lens of a camera 2 peeps into to the transmitter 1 of drawing 1 is prepared. A solar battery 3 is arranged at the external surface of a transmitter 1, power generation by sunlight is performed by this solar battery 3, and this current charges at the rechargeable batteries 8 and 8a by the lithium ion battery, the proton polymer battery, etc. through the electric double layer capacitor 9 and the power control circuit 10 which are shown in drawing 1 (b). Therefore, most main parts are occupied by the power unit. Although it is not necessary to use two pieces as shown in drawing when one is enough as the voltage of rechargeable batteries 8 and 8a, current, and power capacity, when insufficient now, you have to increase further.

[0014] Generally, since voltage required for a CCD camera is 100mA – about 150mA, 6V–12V, and current can fully perform power generation and charge by sunlight. The CMOS camera is better, if a CMOS camera serves as a low price and high performance, since it can operate by low current value more when using a CMOS camera instead of a CCD camera.

[0015] The image which received a picture with the CCD camera or the CMOS camera is sent by NTSC or the PAL system from the transmitting section 7 (frequency of 13ch – 27ch, 1.2–1.3GHz of broadcasting satellite tuners etc., etc.) of UHF, and it transmits through an antenna 5. Since it is easily receivable with it being the frequency band which is the receiving range of the conventional TV receiver (TV is called henceforth), it is

desirable to make it operate with the minute power acting as [ especially others ] an obstacle using the frequency used as disturbance of this range.

[0016] In addition, you may use frequency of BlueTooth known as radio specification of power saving, and wireless LAN, such as 2.4 etc.GHz. When using for business use, the frequency of exclusive use can also be used, and you may transmit an image digital signal.

[0017] The electric power supply to the radio machine for being installed in the bright place where the day of a space outside the front door or the outdoors hits in many cases, supplying electric power in the power supply to a camera or a microphone without constituting an efficient power supply and wiring the power line by using a solar battery 3, a rechargeable battery 8, the electric-double-layer-capacitor capacitor 9, or a proton polymer battery, and transmitting an image and voice on radio, and the electric power supply to a human body sensing sensor etc. can also perform a transmitter 1.

[0018] In addition, the monitor section 4 is formed in a transmitter 1 if needed, the image copied with the camera 2 may be displayed, and a receiving set is formed, and you may make it project an indoor image. 6 expresses the stop screw.

[0019] Drawing 2 is called to a transmitter 1, forms a button 20, and a switch is turned on and it enables it to transmit an image by pushing this button 20. Moreover, you may enable it to sound a chime simultaneously at this time.

[0020] When giving the function of an interphone, sound is transmitted through a slit 22 and voice is received by the microphone. In telling the voice from indoor, a receiving set and a loudspeaker are needed also for a transmitter 1 side.

[0021] In addition, it is also possible to install in the sense from which the panel (cell) portion of the solar battery 3 with which the transmitter 1 shown in drawing 1 and drawing 2 is equipped is suitably separated from a part for an one transmitter soma, without constituting in one, and the solar quantity of light is obtained more depending on the case.

[0022] In order that drawing 3 may receive the video signal emitted from the antenna 5 of the transmitter 1 attached in the outdoors shown in drawing 1 or drawing 2, it shows the receiver 11 set by TV top or its side, and is received by the antenna 15. The received video signal remains as it is, or is amplified through the high-frequency amplifier (amplifier), and is sent and televised by the usual TV.

[0023] When a signal goes into the indoor receiver 11, the chime 18 attached in the receiver 11 may be sounded, and the chime attached in the outdoors may be sounded. An outdoor image is receivable with the usual TV by choosing the channel which switched on TV and was beforehand decided by remote control in the place where the chime was able to be heard.

[0024]

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## DESCRIPTION OF DRAWINGS

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### [Brief Description of the Drawings]

[Drawing 1] It is the schematic diagram showing the composition of the transmitter of the surveillance camera transmission equipment in the gestalt of operation of this invention.

[Drawing 2] It is the schematic diagram showing the composition which called to the transmitter of the surveillance camera transmission equipment in drawing 1 , attached the button, and gave the interphone function.

[Drawing 3] It is the schematic diagram showing the composition of the receiver of the surveillance camera transmission equipment in the gestalt of operation of this invention.

[Drawing 4] It is the schematic diagram showing the internal configuration of the receiver of the surveillance camera transmission equipment in drawing 3 .

[Drawing 5] It is the schematic diagram showing the example of circuitry of the transmitter of the surveillance camera transmission equipment in the gestalt of operation of this invention.

[Drawing 6] It is the schematic diagram showing the example of circuitry of the receiver of the surveillance camera transmission equipment in the gestalt of operation of this invention.

[Drawing 7] drawing 6 — it is the schematic diagram showing the example of circuitry which changes and transmits the video signal of the receiver of the surveillance camera transmission equipment to kick to a video signal

[Drawing 8] drawing 5 — it is the schematic diagram showing the example of circuitry which transmits the voice of the transmitter of the surveillance camera transmission equipment to kick

[Drawing 9] It is the schematic diagram showing the example of circuitry which records the video signal of the receiver of the surveillance camera transmission equipment in drawing 7 on memory.

### [Description of Notations]

1 Transmitter  
2 Camera  
3 Solar Battery  
5 Antenna  
7 Transmitting Section  
8 Rechargeable Battery  
9 Electric Double Layer Capacitor  
10 Power Control Circuit  
11 Receiver  
12 Receive Section  
13 13a Coupler  
13c Switch  
14 Electric Power Switch  
15 Antenna  
18 Chime  
19 Power Supply Section  
23 Antisuckback Diode

24 Infrared Sensor (Sensor)  
25 Wave Detector  
26 Microphone  
27 Memory  
28 Chime

\* NOTICES \*

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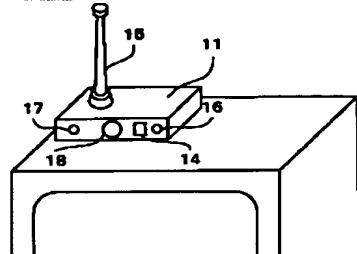
1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

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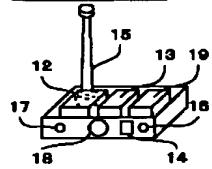
DRAWINGS

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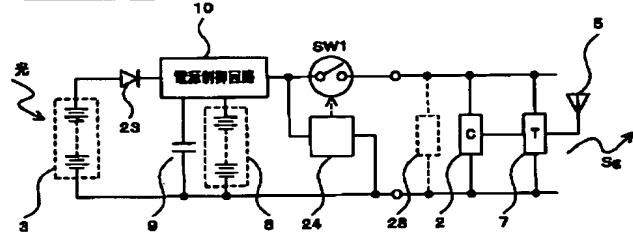
[Drawing 3]



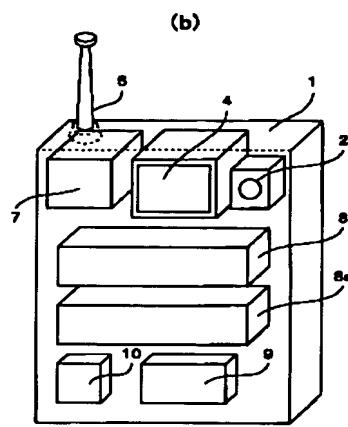
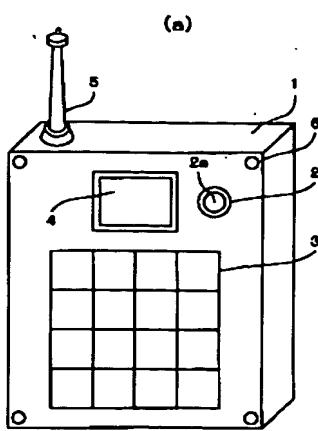
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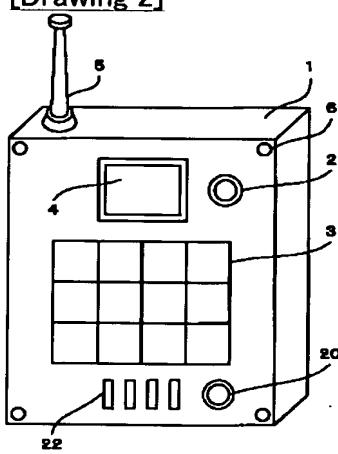
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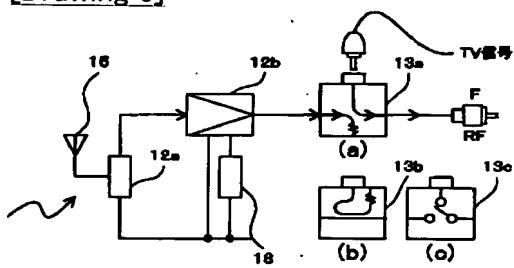
[Drawing 1]



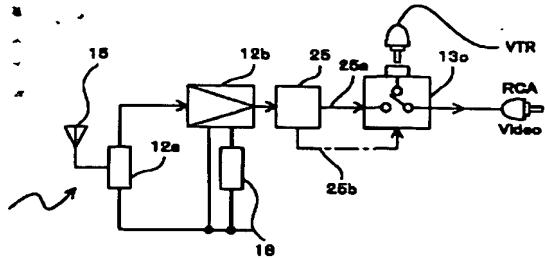
[Drawing 2]



[Drawing 6]

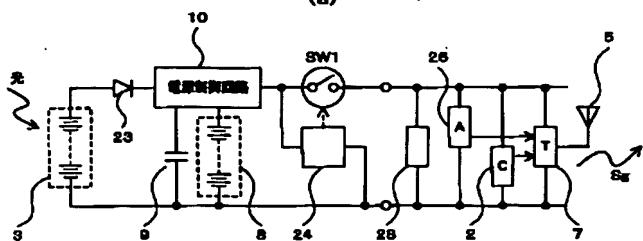


[Drawing 7]

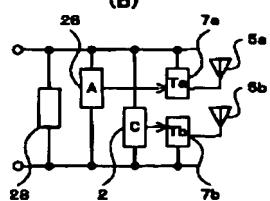


[Drawing 8]

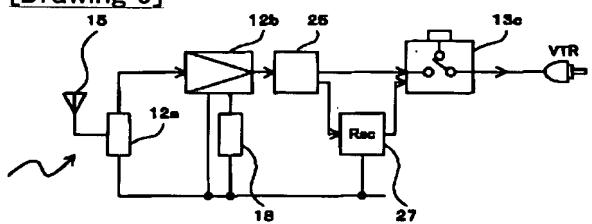
(a)



(b)



[Drawing 9]



[Translation done.]